CLEAN VERSION OF AMENDED SPECIFICATION PARAGRAPHS

METHOD OF REGULATING TRANSCRIPTION IN A CELL
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Amended paragraph beginning at page 6, line 1:

B1

The chromatin remodeling complex subunit may be from an organism such as a plant or animal, such as a human.

Amended paragraph beginning at page 9, line 8:

B2

Many zinc finger proteins have been studied to date. For example, there are zinc finger proteins that are regulators of tissue-specific gene expression such GATA-1 (erythroid), Sp1 (ubiquitous), EKLF (erythroid), FKLF (fetal), BKLF (basic), GKLF (gut), LKLF (lung). There are also zinc finger-containing nuclear hormone receptors such as, androgen, estrogen, thyroid, progesterone, glucocorticoid receptors. Another zinc finger-containing protein is Wilm's tumor suppressor protein, WT1. WT1 encodes a zinc finger transcription factor implicated in kidney differentiation and tumorigenesis. It strongly regulates amphiregulin, a member of the epidermal growth factor family, among other genes. BRCA1 and BRCA2 are zinc finger-containing proteins implicated in hereditary breast and ovarian cancers. KRAB repressor domain-containing zinc-finger proteins are involved in epigenetic silencing of genes. BTB/POZ are domain-containing zinc-finger proteins such as, PLZF (promyelocytic leukemia zinc finger), which is fused to RARalpha (retinoic acid receptor alpha) in a subset of acute promyelocytic leukemias (APLs), where it acts as a potent oncogene.

Amended paragraph beginning at page 24, line 3:

B3

Previous studies have demonstrated that nucleosome disruption is achieved in vitro with only partial SWI/SNF complexes or with the BRG1 subunit alone, which is a DNA-dependent ATPase. Phelan, M.L. et al., Mol. Cell, 3, 247 (1999). Consequently, it was important to

B3 cont'd

determine whether recombinant SWI/SNF subunits can support factor-dependent promoter remodeling and transcriptional activation on chromatin templates in vitro. It was found that recombinant BRG1 and BAF155 are sufficient for transcriptional activation of the chromatin-assembled β-globin gene by EKLF in vitro. Only very weak transcriptional activation of the β-globin promoter was observed when EKLF was incubated in the presence of the free recombinant SWI/SNF subunits, BRG1, BAF155 (the yeast SWI3 homologue), BAF170, or hBRM. Importantly, addition of a minimal SWI/SNF complex containing recombinant BRG1 and BAF155 generated high levels of β-globin transcription by EKLF, which was fully comparable to that obtained with native E-RC1. Assembly of BAF170 into this minimal BRG1/BAF155 complex did not increase transcription relative to the levels observed with BRG1/BAF155 alone.

Amended paragraph beginning at page 28, line 6:

B4

Zinc finger proteins:

1. GATA-1 (erythroid), Sp1 (ubiquitous), EKLF (erythroid), FKLF (fetal), BKLF (basic), GKLF (gut), LKLF (lung). Regulators of tissue-specific gene expression. GATA-1, EKLF, and FKLF.